

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF MISSOURI  
EASTERN DIVISION

ABT SYSTEMS, LLC; and the UNIVERSITY )  
OF CENTRAL FLORIDA BOARD OF )  
TRUSTEES on behalf of the UNIVERSITY )  
OF CENTRAL FLORIDA, )

Plaintiffs/Counterclaim Defendants, )

vs. )

EMERSON ELECTRIC CO., )

Defendant/Counterclaim Plaintiff. )

Case No. 4:11CV00374 AGF

**MEMORANDUM AND ORDER**

This patent infringement action is before the Court on the parties' cross motions for summary judgment (Doc. No. 255 and Doc. No. 272). For the reasons set forth below, Plaintiffs' motion shall be granted in part and denied in part, and Defendant's motion shall be denied in its entirety.

**BACKGROUND**

Plaintiffs ABT Systems, Inc., and the University of Florida Board of Trustees (jointly referred to as "ABT") contend in their second amended complaint (Doc. No. 76) that thermostats manufactured and/or sold by Defendant Emerson Electric Co. ("Emerson") and introduced into the market in 2006, infringe two patents that ABT owns: U.S. Patent No. 5,547,017 ("the '017 Patent"), entitled "Air Distribution Fan Recycling Control," and U.S. Patent No. 6,431,268 B1 ("the '268 Patent"), entitled "Air Distribution Fan and Outside Air

Damper Recycling Control,” issued in 1996 and 2002, respectively. The two patents are referred to herein as “the Rudd Patents,” after Armin Rudd, the named inventor who is now serving as an expert technical consultant for ABT.

By way of counterclaim (Doc. No. 93), Emerson seeks a declaratory judgment that none of the thermostats it manufactures or sells infringe any valid and enforceable claim of the patents; that the claims of the patents are invalid; and that the claims of the patents are unenforceable because, among other things, during the patenting process, ABT withheld information from the United States Patent and Trademark Office regarding the scope and content of prior art.

The Rudd Patents generally claim an air conditioning control that causes a fan to cycle on and off to circulate air when there is no call for heating or cooling, where the periodic fan operation begins after a set pause from when the system stops heating or cooling. According to ABT, this successfully addressed the issue of indoor air stagnation and resulting discomfort during periods of no heating or cooling. ABT states that “[i]n systems prior to the Rudd Patents, typically the fan was deactivated when temperature and/or humidity reached the desired, preselected level; [or] sometimes the fan would continue running for a short period of time after deactivation,” but the fan could not be set to go on at a predetermined time after the system had been deactivated.

The Court held a *Markman* hearing to determine the construction of the single claim term at issue, “recycle control.” On March 2, 2012, the Court issued its *Markman* Order rejecting Emerson’s position that a thermostat and a recycle control were separate and

distinct components and should not be considered one and the same, and adopting ABT's position that "recycle control" meant "[a] control that exists in addition to, or integrated into, a thermostat or humidistat for turning a fan on and off." (Doc. No. 220.)

As more fully set forth below, ABT now argues that it is entitled to summary judgment on its claim that Emerson induces infringement of Claims 1-6 of the '017 Patent and Claims 1-2, 4-7, and 9 of the '268 Patent<sup>1</sup> by selling nine models of Emerson thermostats ("the Accused Products")<sup>2</sup> to customers who have the thermostats installed in their air conditioning systems by a contractor in a necessarily infringing manner, as instructed and intended by Emerson. Emerson argues that it is entitled to summary judgment because the Rudd Patents are invalid in that they were anticipated by prior art, and they constitute combinations of known prior art that would have been obviously apparent to a person of ordinary skill in the art. Emerson also argues that it cannot be liable for willful infringement because it did not know of the Rudd Patents prior to this lawsuit and because its invalidity defense is objectively reasonable. Each side argues that the opposing side's motion should be denied because material factual issues remain to be resolved.

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<sup>1</sup> By Memorandum and Order dated December 26, 2012, the Court denied ABT's motion to amend its final infringement contentions to include dependent claims 3 and 8 of the '268 Patent. (Doc. No. 332.)

<sup>2</sup> The Accused Products are manufactured and/or sold through Emerson's White-Rodgers division.

## **ARGUMENTS AND EVIDENCE OF THE PARTIES**

ABT argues that when the Accused Products are installed and operated, as specifically directed and intended by Emerson, they infringe the asserted claims of the Rudd Patents. Emerson asserts that this violates 35 U.S.C. § 271(b), which provides that a party who “actively induces infringement of a patent shall be liable as an infringer.” In support of its argument, ABT has submitted literature by Emerson related to the Accused Products, such as installation manuals and consumer and trade brochures that relate to the Accused Products, and other evidence, including deposition testimony.

In its memorandum in support of its motion, ABT compares the asserted claims of the Rudd Patents with the Emerson literature to show how each claim is infringed once the Accused Products are installed in an air conditioning system. ABT has also submitted Mr. Rudd’s expert report in which he explains how the manuals instruct installers to interconnect the Accused Products with components of an air conditioning system, such as a circulating fan and ducts, leading to infringing use by the customer with respect to all the relevant claims of the Rudd Patents. (Doc. No. 326-1.) ABT points to Emerson’s admissions that admitted that Emerson made multiple sales of the Accused Products and that the Accused Products were installed in homes and buildings in the relevant time period of this case. ABT also presented the deposition testimony of a representative of a distributor of Emerson thermostats, who testified that he had installed a representative Accused Product to function in an air conditioning system with a circulating fan and ducts, following the directions in Emerson’s installation manuals (Doc. No. 316-1), and the deposition testimony

of Emerson's manager of intellectual property that the accused thermostats were meant to function in a central air conditioning system with ducts and fans (Doc. No. 211-3).

Emerson counters that it cannot be liable for direct infringement because it does not sell the accused thermostats "as part of any air conditioning system, and Emerson has no knowledge of or control over the components of any system in which the accused thermostats are installed." Emerson argues that "it is inappropriate for plaintiffs to tag Emerson with liability for inducing infringement merely because it sold these thermostats to various distributors, who may have installed the thermostats at issue." (Doc. No. 304 at 4.) According to Emerson, because the accused thermostats do not themselves contain elements such as a fan, a heat pump, or ducts, which are elements of the asserted claims of the Rudd Patents, Emerson cannot be liable for direct infringement.

Recognizing that proving a claim of inducing infringement requires ABT to prove that Emerson had a culpable state of mind, ABT also submits the following three pieces of evidence in support of its argument that Emerson had knowledge of the Rudd Patents "well prior to this lawsuit:"

(1) A letter dated February 6, 1995, from Mr. Rudd to John Sartain, the then Product Manager of Emerson's White-Rodgers Division, referencing a discussion the two men had had at a trade show in Chicago a week earlier, about Mr. Rudd's then pending patent for the fan recycling control. (Doc. No. 296-4.)

(2) A journal entry by Mr. Rudd dated February 19, 1996, that he spoke that day (at a trade show in Atlanta) with Mr. Sartain, Mr. Sartain's "boss" and Bart Toth, an electrical engineer at Emerson.<sup>3</sup> The entry states, "send John copy of patent"; that Carl Meuller, the chief electronics engineer at White-Rodgers, would be there the next day; and that "they may be interested in working with me." (Doc. No. 297-1 at 3.)

(3) A letter dated September 12, 1996, from Mr. Rudd to Mr. Sartain referencing their discussion of February 19, 1996, and a discussion Mr. Rudd had with Mr. Meuller the next day. Mr. Rudd wrote that Mr. Meuller had shown interest and wanted to communicate again after the patent issued, which Mr. Rudd wrote had now "finally issued." (Doc. No. 296-5.) Emerson has submitted the deposition testimony of Mr. Sartain that some time after the letters sent by Mr. Rudd, Emerson designed thermostats that would initiate the fan after a predetermined period of time.

Emerson responds that it cannot be liable for inducing infringement because it was not aware of the Rudd Patents until the filing of this lawsuit, and once it had knowledge of the patents-in-suit, it did not induce any infringing acts nor knew or should have known that selling the Accused Products would induce infringement. Emerson submits the deposition of Mr. Toth dated November 15, 2011, attesting that he did not recall ever talking to Mr. Rudd or ever receiving or reviewing a Rudd patent. (Doc. No. 305-1.) Emerson also refers

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<sup>3</sup> Mr. Toth is the named inventor of Emerson's U.S. Patent No. 6,318,639, entitled "Thermostat with Temporary Fan On Function," issued on November 20, 2001. This patent cites the Rudd '017 Patent.

to the deposition of Mr. Sartain stating that he vaguely recalled attending the trade show in Chicago in January 1995, but had no memory of discussing a fan recycle control with Mr. Rudd, or of receiving Mr. Rudd's February 6, 1995 letter, Mr. Rudd's September 19, 1996 letter, a copy of the Rudd '017 patent, or a copy of a nondisclosure agreement from Mr. Rudd. He further testified that when he would receive unsolicited letters like those sent by Mr. Rudd, it was his practice to take no action because it was not Emerson's general practice to license patents. (Doc. No. 275-6.)

Emerson asserts that "[t]here are no Emerson documents or testimony that connect or corroborate Mr. Rudd's discussions in 1995 or the 1996 letter to Sartain with the development of the accused thermostats, the first of which was developed and sold a decade later in 2006." (Doc. No. 304 at 10.) Emerson adds that once it became aware of the patents-in-suit, it had a reasonable belief that they are invalid for the reasons asserted in its own motion for summary judgment. This belief was based, at least in part, upon an oral opinion by Kevin Pumm, an intellectual property attorney who worked for Emerson, that upon conducting a patent search in 2007 related to fan activation in thermostats for air conditioning systems, he advised Emerson that he had uncovered the Vogelsang Patent, and that Emerson "should feel free to practice a thermostat that deactivates air conditioning and in a manner that causes operation of a fan after deactivating the thermostat to remedy stratification." (Doc. No. 310-7 at 11.)

In support of its own motion for summary judgment, Emerson argues that the Rudd Patents are not valid because two prior patents "anticipated" the Rudd Patents: "the

Nakatsumo Patent” issued in 1991; and a “Honeywell Patent” for a thermostat that, according to Emerson, was sold in the United States by August 1995.

Emerson also argues that the Rudd Patents are invalid under the doctrine of “obviousness,” because they simply combine or rearrange prior patents. Emerson maintains that a person of ordinary skill in the art would be motivated to combine the periodic fan of the prior art with the prior art timer that begins with a pause or an “off time.” Emerson points to five prior patents in support of this argument: “the Cornelius Patent,” “the Nakatsumo Patent,” “the Vogelzang Patent,” “the Petrone Patent,” and “the Chirnside Patent.” According to Emerson, “the periodic fan disclosed in references such as Cornelius, Nakatsuno or Vogelzang with the pause in fan operation as described in Petrone results in exactly what a person of ordinary skill in the art would anticipate: a fan that pauses for a set time at the end of the call for heating or cooling before it begins its periodic operation.” (Doc. No. 273.)

ABT responds that the Cornelius, Nakatsuno, and Vogelzang Patents each fails to disclose periodic fan operation as disclosed in the Rudd Patents. For example, ABT asserts that the Nakatsuno Patent’s “single activation of the fan between two cooling operations is very different from the periodic activation and deactivation of the fan recited in the Rudd Patent claims.” (Doc. No. 308 at 6.) Emerson also asserts that Emerson’s evidence that the relevant Honeywell thermostat was publically available by August 1995 is “inconclusive and unreliable.” *Id.* at 7. Emerson challenges the credibility of ABT’s witnesses on this matter, and presents its own evidence that it maintains “tends to show” that the Honeywell



thermostat in question was not prior art.

ABT points to “secondary considerations,” such as the failure of others to successfully address, prior to the Rudd Patents, the problem of air stagnation, as evidence that the Rudd Patents were not obvious.

## **DISCUSSION**

### **Summary Judgment Standard**

In a patent case, “[a]fter the claims at issue have reasonably been construed, a district court may grant summary judgment ‘when it is shown that the infringement issue can be reasonably decided only in favor of the movant, when all reasonable factual inferences are drawn in favor of the non-movant.’” *Kraft Foods, Inc. v. Int’l Trading Co.*, 203 F.3d 1362, 1366 (Fed. Cir. 2000) (quoting *Voice Techs. Group, Inc. v. VMC Sys., Inc.*, 164 F.3d 605, 612 (Fed. Cir. 1999)). Summary judgment is appropriate if no genuine issues of material fact exist, such that the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(a); *OSRAM Sylvania, Inc. v. Am. Induction Techs., Inc.*, 701 F.3d 698, 704 (Fed. Cir. 2012).

### **ABT’s Motion for Summary Judgment**

“Infringement analysis involves two steps. First, the claim scope is determined without regard to the accused device. . . . Second, the properly construed claim is compared with the accused device to determine whether all of the claim limitations are present either literally or by equivalent. This second step is a question of fact.” *Optical*

*Disc Corp. v. Del Mar Avionics*, 208 F.3d 1324, 1333-34 (Fed. Cir. 2000) (citations omitted).

A device that does not literally infringe a claim may nonetheless infringe under the doctrine of equivalents if every element in the claim is literally or equivalently present in the accused device. One way that a patentee may prove that a particular claim element is met under the doctrine of equivalents is by showing that the accused product performs substantially the same function in substantially the same way with substantially the same result as claimed in the patent.

*Energy Transp. Grp., Inc. v. William Demant Holding A/S*, 697 F.3d 1342, 1352-53 (Fed. Cir. 2012) (citations omitted).

As noted above, the Patent Act provides that a party who “actively induces infringement of a patent shall be liable as an infringer.” 35 U.S.C. § 271(b). Inducing infringement under § 271(b) requires that a plaintiff establish evidence of culpable conduct directed toward encouraging another’s direct infringement. *DSU Med. Corp. v. JMS Co., Ltd.*, 471 F.3d 1293, 1305 (Fed. Cir. 2006). “Unlike direct infringement, induced infringement is not a strict liability tort; it requires that the accused inducer act with knowledge that the induced acts constitute patent infringement.” *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301, 1308 (Fed. Cir. 2012) (en banc).

Inducement requires a showing that the alleged inducer knew of the patent, knowingly induced the infringing acts, and possessed a specific intent to encourage another’s infringement of the patent. Intent can be shown by circumstantial evidence, but the mere knowledge of possible infringement will not suffice.

*Vita-Mix Corp. v. Basic Holding, Inc.*, 581 F.3d 1317, 1328 (Fed. Cir. 2009) (citation omitted).

[I]nducement does not require that the induced party be an agent of the inducer or be acting under the inducer's direction or control to such an extent that the act of the induced party can be attributed to the inducer as a direct infringer. It is enough that the inducer causes, urges, encourages, or aids the infringing conduct and that the induced conduct is carried out.

*Akamai Techs, Inc.*, 692 F.3d at 1308 (citation omitted). There can be no induced infringement without direct infringement by a third party or parties. *Id.* ("That principle, that there can be no indirect infringement without direct infringement, is well settled."). Lastly, the patent owner bears the burden of proving infringement. *Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1273 (Fed. Cir. 2004).

The Court finds Emerson's argument that it cannot be liable for inducing infringement because the Accused Products themselves do not encompass all the asserted claims of the Rudd Patents, such as a circulating fan or ducts, to be without merit. The Court concludes that ABT has established that installation and operation of the Accused Products, pursuant to Emerson's instructions, result in direct infringement of the Rudd Patents by third parties. ABT did so by convincingly showing that the Accused Products, when installed and in operation, meet all limitations of the relevant claim terms. (Doc. No. 256 at 9-18.)<sup>4</sup> *Cf. Advanced Software Design Corp. v. Fiserv, Inc.*, 641 F.3d 1368, 1376

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<sup>4</sup> To the extent that any of the Accused Products induce infringement of dependent Claims 3 and 8 of the '268 Patent, Emerson will not be held liable for such inducement, as these claims were not part of ABT's Final Claim Contentions. In addition, the Court questions whether the "GAS2" scenario outlined in ABT's argument (Doc. No. 256 at 11) induces infringement of the relevant claims of the Rudd Patents, as that scenario seems to activate the fan of an air conditioning system based on a preselected temperature after the system shuts down, rather than on a preselected time. In its response to ABT's motion for summary judgement, Emerson did not specifically

(Fed. Cir. 2011) (remanding case to the district court to determine whether evidence that alleged infringer sold its accused software to its customers and helped them install it was sufficient circumstantial evidence of direct infringement by the customers to find induced infringement).

Significantly, Emerson has provided no evidence to the contrary, and has admitted that it made multiple sales of the Accused Products and that the Accused Products were installed in homes and buildings in the relevant time period of this case. (Doc. No. 304-1 28 & 29.) Nor has Emerson attempted to show that any one of the Accused Products, when installed, did not directly infringe. This potentially exposes Emerson to liability, assuming the patents are valid and enforceable. *See Akamai*, 692 F.3d at 1305-06 (explaining that when claims are directed to a product or apparatus, the entity that installs the final part and thereby completes the claimed invention is a direct infringer); *Shumaker v. Gem Mfg. Co.*, 311 F.2d 273, 276 (7th Cir. 1962) (holding that the defendant, who was accused of infringing claims of a patent for a pair of wind deflectors attached to rear corner posts of station wagon to break up vacuum formed during forward movement of vehicle, was liable for inducing others to infringe the patents by selling others the defendant's deflectors with intent that the deflectors be installed in rear corner posts of station wagon in an infringing manner).

But, one of the factual questions necessary to resolve in ABT's favor in order to grant

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challenge this scenario, but will not be precluded from doing so at trial.

ABT's motion for summary judgment is when did Emerson become aware of the Rudd Patents? The Court's review of the record indicates that when taking the evidence in the light most favorable to Emerson, the answer to this question remains in genuine dispute, precluding the grant of summary judgment to ABT. *See, e.g., RF Del., Inc. v. Pac. Keystone Techs., Inc.*, 326 F.3d 1255, 1268 (Fed. Cir. 2003) (reversing the grant of summary judgment of non-infringement where there was a genuine issues of material fact concerning whether the defendant knew about the patents at issue).

In addition, while as discussed below, the Court rejects Emerson's arguments for summary judgment on its behalf on the issue of the Rudd Patents' validity, the Court cannot say as a matter of law that Emerson's reasonable-belief defense to the allegation that it induced infringement, i.e., Emerson's reasonable belief that the Rudd Patents are invalid, is without merit. *See, e.g., DSU Med. Corp.*, 471 F.3d at 1307 (holding that a jury question was presented on the issue of the defendant's intent to induce infringement where record contained evidence that the defendant did not believe its device infringed).

### **Emerson's Motion for Summary Judgment**

Title 35 U.S.C. § 102(a) provides that "[a] person shall be entitled to a patent unless . . . the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent . . . ." To prove that a claim is invalid due to anticipation, the accused infringer must show that "each and every limitation is found either expressly or

inherently in a single prior art reference.” *ArcelorMittal France v. AK Steel Corp.*, 700 F.3d 1314, 1322 (Fed. Cir. 2012) (citation omitted); *see also Am. Calcar, Inc. v. Am. Honda Motor Co.*, 651 F.3d 1318, 1341 (Fed. Cir. 2011) (“To be anticipatory, a reference must describe, either expressly or inherently, each and every claim limitation and enable one of skill in the art to practice an embodiment of the claimed invention without undue experimentation.”)

“Patents are presumed to be valid and invalidity must be proven by clear and convincing evidence.” *OSRAM Sylvania, Inc.*, 701 F.3d at 704. “Anticipation is a question of fact” and “[w]hat a prior art reference discloses” is also a factual question. *ArcelorMittal France*, 700 F.3d at 1322, 1324; *see also OSRAM Sylvania, Inc.*, 701 F.3d at 705-06 (reversing grant of summary judgment finding anticipation where there was a dispute of material fact as to how a person of ordinary skill would understand the limitations in the particular technology).

A claimed invention is unpatentable if the differences between it and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the pertinent art. 35 U.S.C. § 103(a). To invalidate a patent claim based on obviousness, a challenger must demonstrate “by clear and convincing evidence that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.” *ActiveVideo Networks, Inc. v. Verizon Commc’ns, Inc.*, 694 F.3d 1312, 1327 (Fed. Cir. 2012) (citation

omitted); *see also OSRAM Sylvania, Inc.*, 701 F.3d at 706-07.

“The ultimate determination of whether an invention would have been obvious is a legal conclusion based on underlying findings of fact.” *C.W. Zumbiel Co. v. Kappos*, \_\_\_, Fed. Cir. \_\_\_, 2012 WL 6699513, at \*3 (Fed. Cir. Dec. 27, 2012). There are four underlying factual inquiries: “the scope and content of the prior art, the differences between the prior art and the claimed invention, the level of ordinary skill in the field of the invention, and any relevant objective considerations.” *Id.*

The Supreme Court has warned that while an analysis of any teaching, suggestion, or motivation to combine known elements is useful to an obviousness analysis, courts must adopt a flexible approach that asks whether the claimed invention is more than the predictable use of prior art elements according to their established functions. *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 415-17 (2007). The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. *Id.* at 416.

This is not to say that a patent composed of several elements is proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art; a court must look to,

interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

*Id.* at 418.

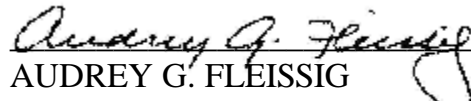
Here, the Court is not prepared to say that the record mandates resolving the above-noted factual questions in Emerson's favor. Many material facts remain in genuine dispute. For example, when did the Honeywell thermostat in question become publically available? This makes summary judgment in favor of Emerson inappropriate. *See, e.g., OSRAM Sylvania, Inc.*, 701 F.3d at 708 (reversing grant of summary judgment finding obviousness, where factual issues remained).

### **CONCLUSION**

Accordingly,

**IT IS HEREBY ORDERED** that ABT's motion for summary judgment is granted on the question of whether the Accused Products infringe the Rudd Patents, but denied on the question of when Emerson became aware of the Rudd Patents. (Doc. No. 255.)

**IT IS FURTHER ORDERED** that Emerson's motion for summary judgment is **DENIED**. (Doc. No. 272.)

  
AUDREY G. FLEISSIG  
UNITED STATES DISTRICT JUDGE

Dated this 16th day of January, 2013.